## DT11 Rec'd PCT/PTO 2-8 JUN 2004

904 16:02 +45-48207005

POLYPEPTIDE

02783479

PCT/1802/

REX

PCT/IB02/05581 amonded 12.03.2004

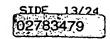
B

## CLAIMS

- 1. A process of purification of an otherwise pure nona- or decapeptide from residual organic solvent, comprising the following steps:
  - dissolving the nona- or decapeptide in a dissolution solvent mixture comprising water and at least one alcohol selected from methanol, ethanol, propanol, isopropanol;
- adding the solution of the nona- or decapeptide in said solvent mixture to a vigorously stirred precipitation solvent mixture essentially consisting of one or several polar compounds selected from methyl acetate, ethyl acetate, methyl propionate, ethyl propionate, butyl acetate, isobutyl acetate,
- t-butyl acetate, ethyl formate, propyl formate, isopropyl formate, and one or several non-polar compounds selected from hexane, beptane, octane, cyclohexane, methylcyclohexane, and, optionally, of up to 5% of acetic or propionic acid;
  - isolating the precipitated nona- or decapeptide;
- washing the isolated nona- or decapeptide with one or a mixture of said polar compounds or a solvent or solvent mixture of similar polarity,
  - drying the washed nona- or decapeptide,
- with the proviso that the water content of said solvent

  25 mixture comprising water and at least one alcohol is below 85 (v/v), and that the volume ratio of the dissolution solvent mixture and the precipitation solvent mixture is 1:10 or more.
- 2. The process of claim 1, wherein the water content of said solvent mixture comprising water and at least one alcohol is below 5% (v/v).
  - 3. The process of claim 1, wherein said nona- or decapeptide is an LHRH antagonist.

BEST AVAILABLE COPY



PCT/IB02/95581 amended 12.03.2004

4. The process of claim 3, wherein said nona- or decapeptide is Ac-p-2Nal-D-4ClPhe-D-3Pal-Ser-MeTyr-D-Asn-Leu-Lys(iPr)-Pro-D-Ala-11H2 (I).

- 5. The process of claim 4, wherein Ac-D-2Nal-D-4ClPhe-D-3Pal-Ser-MeTyr-D-Asn-Leu-Lys(iPr)-Pro-D-Ala-NH2 (I) is obtained in form of the monoacetate.
- 6. The process of claim 1, wherein the volume ratio of the dissolution solvent mixture and the precipitation solvent mixture is at least 15.
- 7. The process of claim 1, wherein the alcohol of the dissolution solvent mixture is ethanol. 15
  - 8. The process of claim 1, wherein the polar component of the precipitation solvent mixture is ethyl acetate.
- 20 9. The process of claim 1, wherein the non-polar component of the predipitation solvent mixture is heptane.
  - 10. The monoacetate or Ac-D-2Nal-D-4ClPhe-D-3Pal-Ser-MeTyr-D-Asn-Leu-Lys (iPr) - Pro-D-Ala-NH2.

25

30